DCC DOCUMENT ISSUE DATE:2021/10/26

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SWITCH FUNCTION C		SWITCH FUNCTION DESCRIPTION						
1		MECHANICAL, MOMENTARY, SOLDER TERMINAL						
2		MECHANICAL, MAINTAINED, SOLDER TERMINAL						
5		MECHANICAL, MOMENTARY, P.C. TERMINAL						
6		MECHANICAL, MAINTAINED, P.C. TERMINAL						
Α		MACHANICAL, MOMENTARY, WIRELEADS						
В		MACHANICAL, MAINATINED, WIRELEADS						

HOUS IATERIAL	 HOUSING DECSRIPTION	ΤY
1	STAINLESS STEEL	
2	ZINC ALLOY, CHROME PLATED	

ILL YPE	U. CODE	ILLUMINATION TYPE DESCRIPTION
	0	NON-ILLUMINATION
1		CENTER SPOT ILLUMINATION
	2	RING ILLUMINATION
	3	POWER/STANDBY SYMBOL ILLUMINATION

XX

LED COLOR CODE	LED COLOR	LED INLET COI		LED INLET VOLTAGE	
Ν	NONE	NON-	IF BLANK*	(SEE NOTE)	
Α	AMBER	WIRELEADS		5V	
R	RED		05		
Y	YELLOW		IF BLANK*	(SEE NOTE)	
В	BLUE		05	5V	
G	GREEN	WIRELEADS	12	12V	
w	WHITE		24	24V	
RB	RED/BLUE				
RG	RED/GREEN				

MECHANICAL CHARACTERISTICS: SWITCH CIRCUITRY: SPST-NO-DB (CONTACT FORM X) SWITCH ACTION: MOMENTARY AND MAINTAINED (PER CHART) BUTTON TRAVEL: 2.3mm [.090] NOMINAL OPERATING FORCE: 306g [3N] NOMINAL CONTACT BOUNCE: 1ms NOMINAL DANEL THICKNES: 0.5 4 5 mm L020 1771 PANEL THICKNESS: 0.5 - 4.5mm [.020 - .177] CONTACTS: SILVER PLATED NUT TORQUE FORCE: 11.5 kgf-cm [MAX 10 LB-in]

ENVIRONMENTAL SPECIFICATIONS:

ACTUATOR INGRESS PROTECTION: IP67 OPERATING TEMPERATURE: NON-ILLUMINATION TYPE:-40 C to +85 C [-40 F to +185 F] ILLUMINATION TYPE:-40 C to +85 C [-40 F to +185 F] MOMENTARY:-40 C to +85 C [-40 F to +185 F] MAINTAINED: -40 C to +85 C [-40 F to +185 F]

ELECTRICAL SPECIFICATIONS: CURRENT RATING:

MOMENTARY: 10mA@12VDC, 100K CYCLES MAINTAINED : 20K CYCLES NOMINAL DIELECTRIC STRENGTH: 1,000VAC INSULATION RESISTANCE: 1G OHM CONTACT RESISTANCE: 50m OHMS MAX INITIAL(NON-WIRELEADS) 250m OHMS MAX INITIAL (WIRELEADS)

8

- NOTE 1. CURRENT LIMITING RESISTOR IS REQUIRED
- TO LIMIT LED FORWARD CURRENT TO 20mA
- 2. SUPPLY HEX NUT AND SEALING WASHER BULK PACKED.
- 3. INNER RESISTOR ONLY FOR LED :RED / BLUE / GREEN / WHITE.

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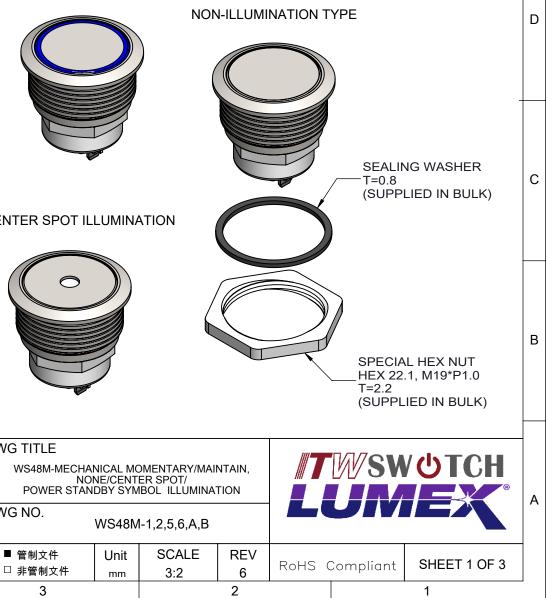
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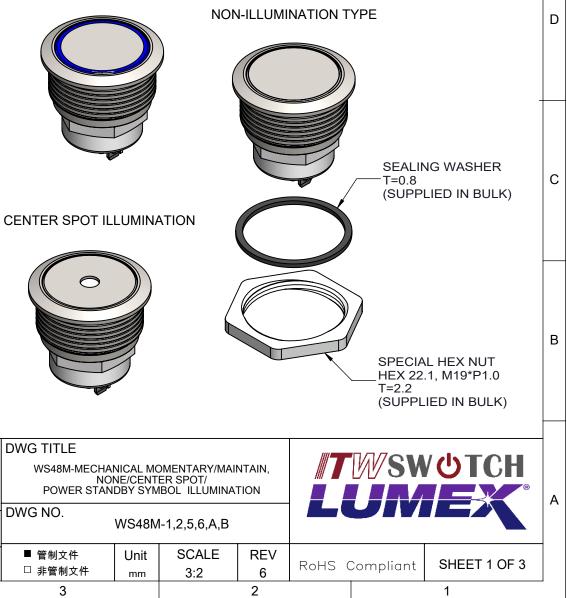
	LED SPECIFICATION									
LED CODE		ED	Vf(VDC)	lf	CIRCUITRY					
	SINGLE	COLOR	TYP.	(mA)	CIRCUIRT					
R	RED AMBER		2.0	20						
А			2.0	20						
Y	YEL	LOW	2.0	20	RED 77 BLACK					
G	GR	EEN	3.0	20	WIRELEADS O WIRELEADS (+) (-)					
В	BL	UE	3.1	20						
W	WHITE		3.3	20						
	BICOL	BICOLOR LED		lf						
LED CODE	COLOR1	COLOR2	TYP.	(mA)	CIRCUITRY					
RB	RED	BLUE	2.0(RED) 3.3(BLUE)	20						
	RED	GREEN	2.0(RED) 3.4(GREEN)	20	WIRELEADS O WIRELEA (+) // COLOR 2					

Hand Soldering Temperature (4mmabove from Body) : 320°C for 3 seconds

WIRELEADS SPECIFICATION											
	WIRELEADS	SW TE	RMINAL	LED							
WIRELEADS TYPE	SPECIFICATION	/	0	+	-						
ILLUMINATION		BLUE	BLUE	RED	BLACK						
NON-ILLUMINATION	AWG26 / UL1007	BLUE	BLUE								

RING ILLUMINATIO TYPE





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			REVIEW	X.XX ± 0.25 ANGULAR ± 5°		NONE/CEI POWER STANDBY S		
	DWG TYPE SALES DRAWING	DRAWN <i>K.Y.</i>	TOLERANCES: UNLESS OTHERWISE X.X ± 0.5	E NOTED	WS48M-MECHA	HANICAL MOME		

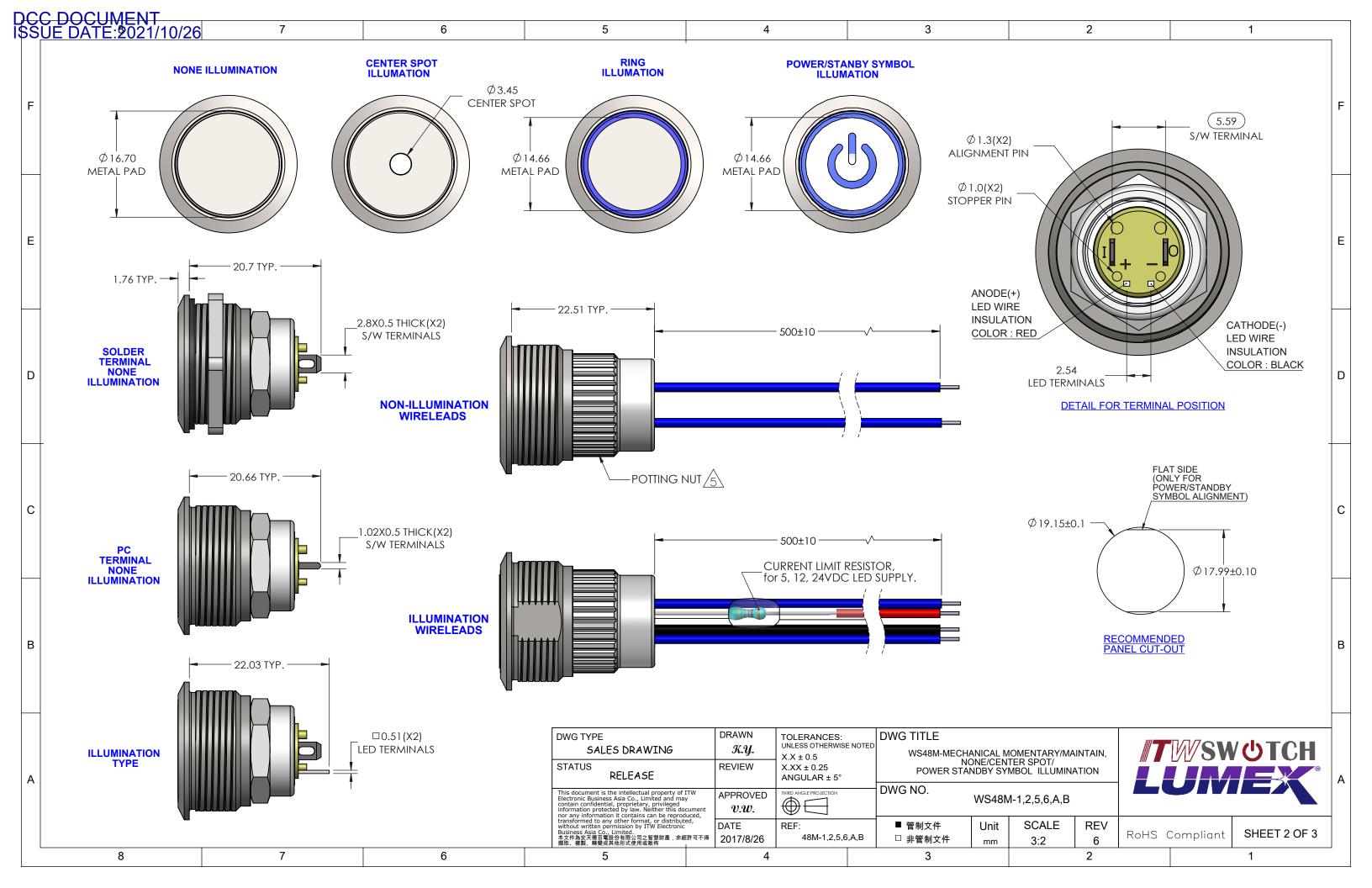


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DCC DOCUMENT ISSUE DATE:2022/01/26

SWITCH FUNCTION CODE

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N	SWITCH FUNCTION DESCRIPTION	H MATE	DUSING RIAL CODE	HOUSING DECSRIPTION	ILLU. TYPE CODE	ILLUMINATION TYPE DESCRIPTION	LED COLOR CODE	LED COLOR	LED INLET V COD		LED INLET VOLTAGE	ACCESSORIES CODE	ACCESSORIES
	MACHANICAL, MOMENTARY, WIRELEADS		1	STAINLESS STEEL	0	NON-ILLUMINATION	N	NONE	NON-	IF BLANK*	(SEE NOTE)	A3	ADD PVC COVER OVER THE WIRE-LEADS
	MACHANICAL, MAINATINED, WIRELEADS		2	ZINC ALLOY, CHROME PLATED	1	CENTER SPOT ILLUMINATION	A	AMBER	WIRELEADS	05	5V		
	WIRLELADO		3	AL ALLOY , ANODIZED BLACK	SRIPTION ILLU. TYPE ILLUMINATION TYPE DESCRIPTION SS 0 NON-ILLUMINATION OY, LATED 1 CENTER SPOT ILLUMINATION Y, 2 RING ILLUMINATION	R	RED YELLOW		IF BLANK*	(SEE NOTE)			
		L		7.100.220 02.1011	TYPE CODE ILLUMINATION TYPE DESCRIPTION 0 NON-ILLUMINATION 1 CENTER SPOT ILLUMINATION 2 RING ILLUMINATION 2 POWER/STANDBY SYMBOL	В	BLUE		05	5V			
							G	GREEN	WIRELEADS	12	12V		
							W	WHITE		24	24V		

RB

RG

RED/BLUE

RED/GREEN

4

3

MECHANICAL CHARACTERISTICS: SWITCH CIRCUITRY: SPST-NO-DB (CONTACT FORM X) SWITCH ACTION: MOMENTARY AND MAINTAINED (PER CHART) SWITCH ACTION: MOMENTARY AND MAINTA BUTTON TRAVEL: 2.3mm [.090] NOMINAL OPERATING FORCE: 306g [3N] NOMINAL CONTACT BOUNCE: 1ms NOMINAL PANEL THICKNESS: 0.5 - 4.5mm [.020 - .177] CONTACTS: SILVER PLATED NUT TORQUE FORCE: 11.5 kgf-cm [MAX 10 LB-in]

7

ENVIRONMENTAL SPECIFICATIONS: ACTUATOR INGRESS PROTECTION: IP67 **OPERATING TEMPERATURE:** NON-ILLUMINATION TYPE:-40 C to +85 C [-40 F to +185 F] ILLUMINATION TYPE:-40 C to +85 C [-40 F to +185 F] MOMENTARY:-40 C to +85 C [-40 F to +185 F] MAINTAINED: -40 C to +85 C [-40 F to +185 F]

ELECTRICAL SPECIFICATIONS: CURRENT RATING: MOMENTARY: 10mA@12VDC, 100K CYCLES MAINTAINED : 20K CYCLES NOMINAL DIELECTRIC STRENGTH: 1,000VAC INSULATION RESISTANCE: 1G OHM CONTACT RESISTANCE: 50m OHMS MAX INITIAL(NON-WIRELEADS) 250m OHMS MAX INITIAL(WIRELEADS)

NOTE

8

 CURRENT LIMITING RESISTOR IS REQUIRED TO LIMIT LED FORWARD CURRENT TO 20mA SUPPLY HEX NUT AND SEALING WASHER BULK PACKED. INNER RESISTOR ONLY FOR LED :RED / BLUE / GREEN / WHITE.

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6

LED SPECIFICATION										
LED CODE	LED		Vf(VDC)	lf	CIRCUITRY					
	SINGLE	COLOR	TYP.	(mA)	CIRCUITRI					
R	RE	ED	2.0	20						
A	AMBER		2.0	20	11					
Y	YEL	LOW	2.0	20	RED BLACK WIRELEADS					
G	GRI	EEN	EN 3.0 20		(+) (-)					
В	BL	UE	3.1	20						
W	WHITE		WHITE		WHITE		3.3	20		
	BICOLO	OR LED	Vf(VDC)	lf						
LED CODE	COLOR1	COLOR2	TYP.	(mA)	CIRCUITRY					
RB	RED	BLUE	2.0(RED) 3.3(BLUE)	20						
RG	RED	GREEN	2.0(RED) 3.4(GREEN)	20	WIRELEADS O WIRELEAD					
NOTE										

NOTE: Hand Soldering Temperature (4mmabove from Body) : 320°C for 3 seconds

WIRELEADS SPECIFICATION											
WIRELEADS TYPE	WIRELEADS	SW TE	RMINAL	LED							
	SPECIFICATION	/	0	+	-						
ILLUMINATION		BLUE	BLUE	RED	BLACK						
NON-ILLUMINATION	AWG26 / UL1007	BLUE	BLUE								

DWG TYPE SALES DRAWING	DRAWI					ENTARY/MAINT/ PVC COVER,	AINED,	///	M/SN	/ UTCH	
STATUS RELEASE	REVIEV			NONE/CENTER S		G/POWER-SŤAN	IDBY				A
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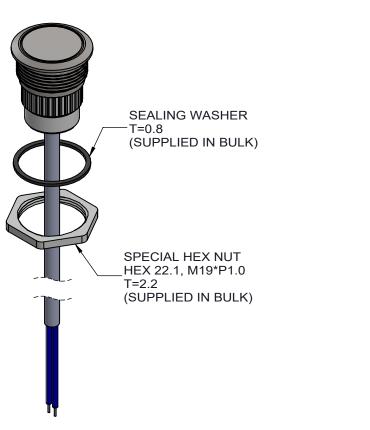
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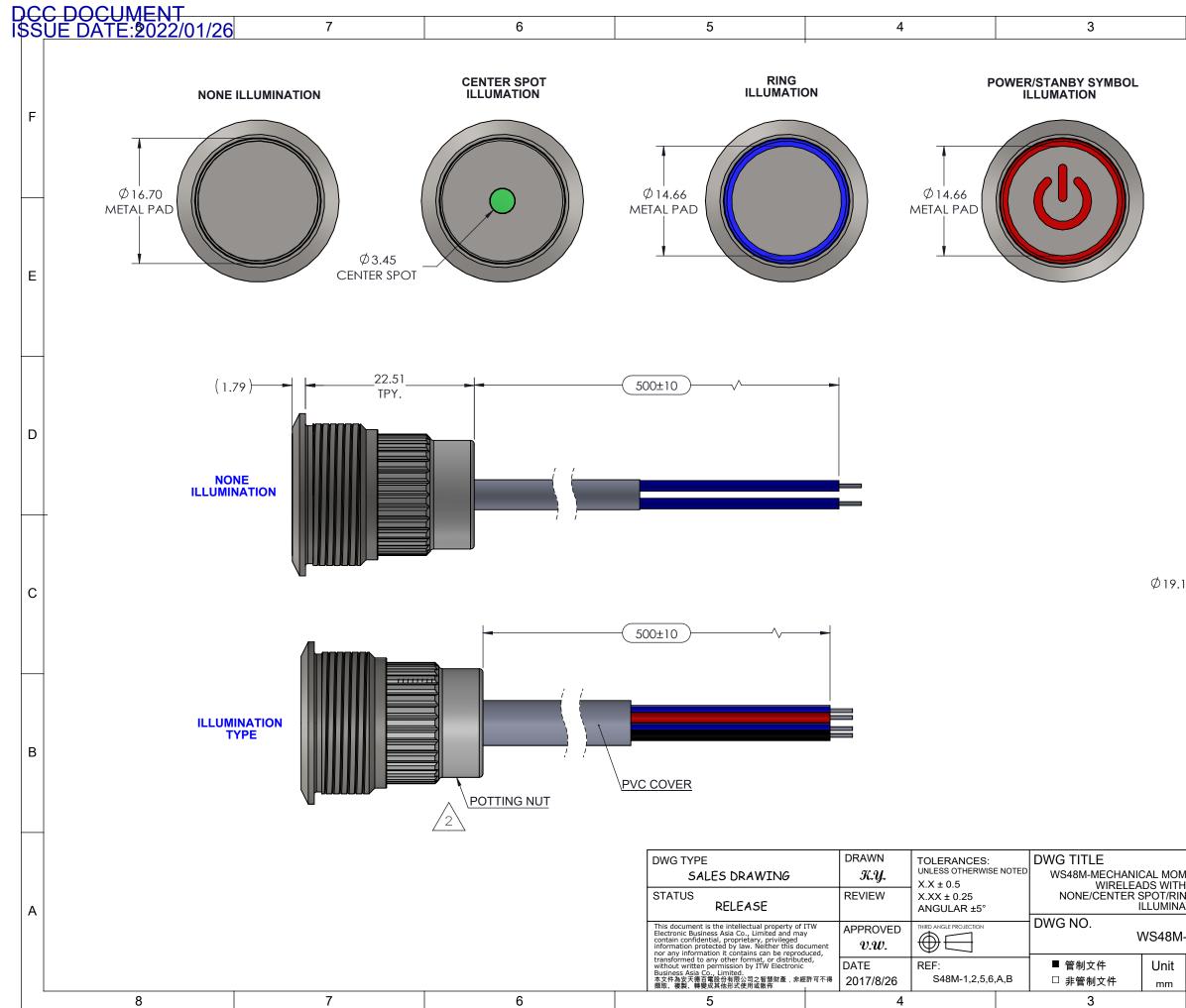
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(ON PO\	VT SIDE ILY FOR WER/STANDBY MBOL ALIGNMENT) Ø 17.99±0.10	c					
RECOMMENDED PANEL CUT-OUT							
MENTARY/MAINTAINED, H PVC COVER, ING/POWER-STANDBY IATION M-A,B-A3							
SCALEREV3:232	RoHS Compliant	SHEET 2 OF 3					

	UMENT E:2022/03	3/08	7		6	5	4		3	2		1		
					WS48M		GB XX							
CODE CODE CODE CODE CODE						ILLU. PE CODE ILLUMINATION TYPE DESCRIPTION LED COLOR CODE LED COLOR 1 CENTER SPOT ILLUMINATION RGB RED/GREEN/BLUE				AGE LED INLET VOLTAGE				
B	A MACHANICAL, MOMENTARY, WIRELEADS 1 STAINLESS STEEL B MACHANICAL, MAINATINED, WIRELEADS 1 STAINLESS					2 RING ILLUMINATION			IF BLANK*	IF BLANK* (SEE NOTE)				
L					2 ZINC ALLOY, CHROME PLATED	3 POWER/STANDBY SYMBOL IL	LUMINATION		05	5V 12V				
					3 AL ALLOY, ANODIZED BLACK				24	24V				
MECHANI SWITCH (ICAL CHARAG	CTERISTIC PST-NO-DI	S: B (CONTAC1	FORM	X)	Ø21.6			Ø 16.7 FLAT SIDE (ONLY FOR POWER/STANDBY SYMBOL ALIGNMENT					
MECHANICAL CHARACTERISTICS: SWITCH CIRCUITRY: SPST-NO-DB (CONTACT FORM X) SWITCH ACTION: MOMENTARY AND MAINTAINED (PER CHART) BUTTON TRAVEL: 2.3mm [.090] NOMINAL OPERATING FORCE: 306g [3N] NOMINAL CONTACT BOUNCE: 1ms NOMINAL PANEL THICKNESS: 0.5 - 4.5mm [.020177] CONTACTS: SILVER PLATED NUT TORQUE FORCE: 11.5 kgf-cm [MAX 10 LB-in]										Ø 19.15±0.1				
ACTUATO	IMENTAL SPE DR INGRESS F NG TEMPERA	PROTECTIO	ON: IP67	40 F to +	185 F]									
CURRENT MOMENTA MAINTAIN DIELECTR	ARY: 10mA@ [·] IED : 20K CYC RIC STRENGT	12VDC, 100 CLES NOMI H: 1,000VA)K CYCLES NAL AC			CENTER SPOT ILLUMINATION	RING ILL	LUMINATION	POWER/STANE ILLUMIN 22.5 50		RECOMMEN PANEL CUT-			
CONTACT 250m OHN	ON RESISTAN T RESISTANC MS MAX INITI	NCE: 1G OF E:	HM											
NOTE	NT LIMITING	RD CURREI	NT TO 20mA											
1. CURRE	LED FORWAF Y HEX NUT AI	ND SEALIN	G WASHER	BOLK P	ACKED.							5.		
1. CURRE	LED FORWAF		IG WASHER		ACKED.				- (ESISTANCE FOR	HAVDC	57		
1. CURRE	LED FORWAF Y HEX NUT AI				ACKED.					ESISTANCE FOR				
1. CURRE TO LIMIT I 2. SUPPLY	LED FORWAF Y HEX NUT AI	LE ED Vf (VDC	ED SPECIFIC	ATION							HEX N			
1. CURRE TO LIMIT I 2. SUPPLY	LED FORWAF Y HEX NUT AI	LE												
1. CURRE TO LIMIT I 2. SUPPLY	LED FORWAF Y HEX NUT AI	LE ED Vf (VDC Color	ED SPECIFIC	ATION				RELEADS SPECIFICATION						
1. CURRE TO LIMIT I 2. SUPPLY ED CODE	LED FORWAF Y HEX NUT AI	LE ED Vf (VDC Color GREEN	ED SPECIFIC	ATION	CIRCUITRY	WIRELEADS TYPE	WIRELEADS SPECIFICATION	SW TERMINAL / O	ON LED COM(+) RED(-)	GREEN(-) BLUE(-)				
1. CURRE TO LIMIT I 2. SUPPLY ED CODE RGB COMMON ANODE)	LED FORWAF Y HEX NUT AI	LE ED Vf (VDC Color GREEN	ED SPECIFIC	ATION If (mA)		WIRELEADS TYPE	WIRELEADS	SW TERMINAL / O WHITE WHITE	ON LED COM(+) RED(-) YELLOW RED	SVDC OR 12VDC OR 2	HEX N	Л		
1. CURRE TO LIMIT I 2. SUPPLY ED CODE RGB COMMON ANODE) RGB05 COMMON	LED FORWAF Y HEX NUT AI	LE ED Vf (VDC Color GREEN	ED SPECIFIC	ATION If (mA)		WIRELEADS TYPE ILLUMINATION DWG TYPE SALES DRAWING	WIRELEADS SPECIFICATION AWG26 / UL1007 DRAWN <i>K.Y.</i>	SW TERMINAL / O WHITE WHITE TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5	ON COM(+) YELLOW DWG TITLE WS48M-MECHANICAL	GREEN(-) BLUE(-)	HEX N			
1. CURRE TO LIMIT I 2. SUPPLY LED CODE RGB (COMMON ANODE) RGB05 (COMMON ANODE) RGB12 (COMMON	LED FORWAF Y HEX NUT AI	LE ED Vf (VDC Color GREEN 2.6 ~ 3.4	ED SPECIFIC Color BLUE 2.6 ~ 3.4	CATION	CIRCUITRY	HEX NUT WIRELEADS TYPE ILLUMINATION DWG TYPE SALES DRAWING STATUS RELEASE This document is the intellectual property of	WIRELEADS SPECIFICATION AWG26 / UL1007 DRAWN <i>K.Y.</i> REVIEW <i>J.S.</i>	SW TERMINAL / O WHITE WHITE TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25 ANGULAR ± 5° THIRD ANGLE PROJECTION	ON LED COM(+) RED(-) YELLOW RED DWG TITLE WS48M-MECHANICAL RGB ILLI	GREEN(-) BLUE(-) GREEN BLUE GREEN BLUE	HEX NO	Л		
1. CURRE TO LIMIT I 2. SUPPLY	LED FORWAF Y HEX NUT AI Color RED 1.7 ~ 2.6 5 12	LE ED Vf (VDC Color GREEN 2.6 ~ 3.4 5	ED SPECIFIC Color BLUE 2.6 ~ 3.4 5	ATION If (mA) 20 20	CIRCUITRY (RED) O (BLUE) O (RED)O (RE	HEX NUT WIRELEADS TYPE ILLUMINATION DWG TYPE SALES DRAWING STATUS RELEASE	WIRELEADS SPECIFICATION AWG26 / UL1007 DRAWN <i>K.Y.</i> REVIEW <i>J.S.</i> of ITW ad document roduced. <i>V.W.</i>	SW TERMINAL / O WHITE WHITE TOLERANCES: UNLESS OTHERWISE NOTED X.X ± 0.5 X.X ± 0.25 ANGULAR ± 5°	ON LED COM(+) RED(-) YELLOW RED DWG TITLE WS48M-MECHANICAL RGB ILLI	GREEN(-) BLUE(-) GREEN BLUE		л W ФТСН		



REVISION RECORD											
REV.	REV. DESCRIPTION			DATE				DRAWN BY	DOCUMEN	DOCUMENT NO.	
1	RE	LEASE FO	R PRODUCT	TION	2	022/02/18		K.Y./T.S.	DCN-2022	00015	
DWG TYPE		DRAWN	TOLERANCES:	DWG TITLE							
STATUS	RAWING	<i>K.Y.</i> REVIEW	UNLESS OTHERWISE NOTED X.X ± 0.5 X.XX ± 0.25	WS48M-MECHA RC	NICAL MO GB ILLUM	DMENTARY/MA	AINTAIN,	IT WSWŮTCH			
RELEASE J.S. ANGULAR ± 5° This document is the intellectual property of TW APPROVED THIRD ANGLE PROJECTION			DWG NO. WS48M-A,B-RGB				LUMEX				
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